

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-11 and 13-15 in accordance with the following:

1. (CURRENTLY AMENDED) An apparatus having a plurality of signal inputs and a plurality of signal outputs, comprising:

~~one-two~~ or more sub-switch units each ~~having a portion of the~~receiving signal inputs, which ~~are not all of the signal inputs that the apparatus is able to accommodate,~~ and switching and connecting the ~~portion of the~~ received signal inputs to ~~a portion of the~~ signal outputs, ~~which are not all of the signal outputs that the apparatus is able to accommodate~~of only a portion of a total number of signals, wherein

the ~~one-two~~ or more sub-switch units are independent from one another and are not connected or switched between one another, thereby and forming a non-complete switch, through which all the signal inputs to the apparatus are switched and connected.

2. (CURRENTLY AMENDED) The apparatus according to claim 1, further comprising:
a wavelength demultiplexing unit demultiplexing an input wavelength-multiplexed signal into optical signals respectively having a single wavelength; and

a wavelength multiplexing unit multiplexing the signals respectively having the single wavelengths, which are switched and connected by the ~~one-two~~ or more sub-switch units, into an output wavelength-multiplexed signal.

3. (CURRENTLY AMENDED) The apparatus according to claim 2, wherein
the ~~one-two~~ or more sub-switch units, to which optical signals are respectively input, switch and connect in units of optical signals.

4. (CURRENTLY AMENDED) The apparatus according to claim 1, further comprising:
an electro-optic converting unit converting an electric signal into an optical signal; and
an opto-electric converting unit converting an optical signal into an electric signal,
wherein the ~~one-two~~ or more sub-switch units respectively switch and connect the electric signals.

5. (CURRENTLY AMENDED) The apparatus according to claim 1, further comprising:
an electro-optic converting unit converting an electric signal into an optical signal;
an opto-electric converting unit converting an optical signal into an electric signal; and
at least one optical switch unit and at least one electric switch unit, both of which are
respectively located within the ~~one~~two or more sub-switch units and independently switch input
signals to output signals, and

wherein the opto-electric converting unit inputs an electric signal to the electric switch
unit and the electro-optic converting unit receives an electric signal from the electric switch unit
and outputs an optical signal.

6. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein
at least one of the ~~one~~two or more sub-switch units switches and connects in units of
wavelength-multiplexed signals.

7. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein
at least one of the ~~one~~two or more sub-switch units is a through unit that passes signals
through unchanged without switching and connecting the signals.

8. (CURRENTLY AMENDED) The apparatus according to claim 1, further comprising:
a distribution switch unit distributing signals to any of the ~~one~~two or more sub-switch
units; and
a selection switch unit selecting and outputting signals output from the ~~one~~two or more
sub-switch units.

9. (CURRENTLY AMENDED) The apparatus according to claim 1, further comprising
a plurality of optical add/drop multiplexers (ADMs), wherein a dropped signal from the
optical ADMs is input to the ~~one~~two or more sub-switch units, and an output from the ~~one~~two or
more sub-switch units is added to the optical ADMs.

10. (CURRENTLY AMENDED) A signal switching and connection method for use in an
optical node device having a plurality of signal inputs receiving a plurality of signals, and a
plurality of signal outputs, the method comprising:

providing a non-complete group switch having ~~one~~two or more independent sub-switch
units which are not connected or switched between one another;

inputting ~~a portion of the~~ plurality of signals of only a portion of a total number of signals
into each of the sub-switch units; and

switching, connecting, and outputting ~~the portion of the signals~~ of only a portion of the total number of the signals, wherein

all of the plurality of signals are switched and connected by the non-complete group switch by performing said inputting ~~a portion of the plurality of signals~~ and said switching, connecting, and outputting ~~the portion of the signals~~ for all of the signals input to the optical node device.

11. (CURRENTLY AMENDED) The signal switching and connection method according to claim 10, wherein

~~another portion~~ a number of the signals input to the optical node device are passed through without being switched and connected.

12. (PREVIOUSLY PRESENTED) The signal switching and connection method according to claim 10, wherein

certain ones of the signals input to the optical node device are switched and connected in units of wavelength-multiplexed signals.

13. (CURRENTLY AMENDED) The signal switching and connection method according to claim 10, further comprising:

passing through ~~a second portion~~ number of the signals input to the optical node device without switching and connecting the ~~second portion~~ number of the signals;

switching and connecting ~~a third portion of another number of~~ the signals input to the optical node device in units of wavelength-multiplexed signals; and

selecting any of said switching, connecting, and outputting ~~the portion of the signals, said passing through a second portion, and said switching and connecting a third portion,~~ for all of the signals input to the optical node device.

14. (CURRENTLY AMENDED) The signal switching and connection method according to claim 10, wherein

said switching, connecting, and outputting ~~the portion of the signals~~ comprises selecting a signal to switch and connect using an optical add/drop multiplexer ADM.

15. (CURRENTLY AMENDED) A switch receiving a plurality of signals through a plurality of input ports and outputting the signals through a plurality of output ports, comprising:

a plurality of independent sub-switch units which are not connected or switched between one another, respectively comprising ~~a different portion of the input ports and a different portion~~

of the output ports, each sub-switch unit receiving a different portion of the plurality of signals through the different portion of the input ports, and switching and connecting the different portion of the plurality of signals to the different portion of the output ports of only a portion of a total number of signals,

wherein the plurality of sub-switch units comprises a non-complete switch through which all of the signals are switched.